

Title (en)

INTERNAL ALUMINIDE COATING FOR VANES AND BLADES AND METHOD OF MANUFACTURE

Title (de)

INNENBESCHICHTUNG AUS ALUMINID FÜR SCHAUFELN UND SCHAUFELN UND HERSTELLUNGSVERFAHREN

Title (fr)

REVÊTEMENT INTERNE EN ALUMINIURE POUR AUBES ET AUBES ET PROCÉDÉ DE FABRICATION

Publication

**EP 4332269 A1 20240306 (EN)**

Application

**EP 23188995 A 20230801**

Priority

US 202217882180 A 20220805

Abstract (en)

A gas turbine engine component (30) includes a substrate (32) having first surface (34) and a second surface (36) disposed opposite the first surface (34), a plurality of holes (40) extending through the substrate (32) from the first surface (34) to the second surface (36), the holes (40) defined by a plurality of respective walls (40a, 40b) each extending from the first surface (34) to the second surface (36), a metallic bond coat (38) disposed on the first surface (34), and an aluminide coating (42) disposed on the first surface (34), the second surface (36), and the walls (40a, 40b). The metallic bond coat (38) is disposed between the first surface (34) and the aluminide coating (42) and the walls (40a, 40b) are free of the metallic bond coat (38).

IPC 8 full level

**C23C 28/00** (2006.01); **F01D 5/18** (2006.01); **F01D 5/28** (2006.01)

CPC (source: EP US)

**C23C 4/073** (2016.01 - EP); **C23C 4/10** (2013.01 - EP); **C23C 10/08** (2013.01 - EP); **C23C 28/3215** (2013.01 - EP); **C23C 28/325** (2013.01 - EP); **C23C 28/3455** (2013.01 - EP); **F01D 5/186** (2013.01 - EP); **F01D 5/288** (2013.01 - EP US); **F05D 2220/32** (2013.01 - US); **F05D 2230/10** (2013.01 - US); **F05D 2230/30** (2013.01 - US); **F05D 2230/314** (2013.01 - US); **F05D 2230/90** (2013.01 - EP US); **F05D 2240/11** (2013.01 - EP); **F05D 2300/60** (2013.01 - EP); **F05D 2300/611** (2013.01 - US)

Citation (applicant)

- US 4585481 A 19860429 - GUPTA DINESH K [US], et al
- US 4514469 A 19850430 - LOERSCH JOSEPH F [US], et al

Citation (search report)

- [XII] WO 9705299 A1 19970213 - SIEMENS AG [DE], et al
- [XP] US 2023047576 A1 20230216 - CRAIG BRIAN [US], et al
- [XII] US 2017152749 A1 20170601 - BUNKER RONALD SCOTT [US], et al
- [A] US 6210488 B1 20010403 - BRUCE ROBERT W [US]
- [A] EP 1160352 A1 20011205 - ALSTOM POWER NV [NL]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

KH MA MD TN

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DOCDB simple family (application)

**US 202217882180 A 20220805**; EP 23188995 A 20230801; US 202318379952 A 20231013